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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/734,596

12/15/2003

Alexander Korzhenko

ATOCM-314

1462

23599

7590

06/28/2006

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EXAMINER

SACKEY, EBENEZER O

ART UNIT

PAPER NUMBER

1626

DATE MAILED: 06/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/734,596	<b>Applicant(s)</b> KORZHENKO ET AL.	
	<b>Examiner</b> EBENEZER SACKY	<b>Art Unit</b> 1626	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 December 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,5 and 8 is/are rejected.
- 7) ☒ Claim(s) 2,4,6,7,9-10 and 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/15/03</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### **Status of Claims**

Claims 1-11 are pending.

### ***Specification***

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

### ***Information Disclosure Statement***

Receipt of the Information Disclosure Statement filed 12/15/03 is acknowledged and has been entered into the file. A signed copy of the 1449 is attached herewith.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

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art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 1, recites a functional language "a conductive fluorinated polymer composition". However, the specification only teaches the use of, for example vinyl fluoride, vinylidene fluoride etc., on page 6, lines 30-32 and page 7, lines 1-23. Therefore, the specification is not adequately enabled for the scope of substances embraced by the said functional language. Applicants are reciting the function of the substance rather than what the substance is.

For rejections under 35 U.S.C. 112, first paragraph, the following factors must be considered (In re Wands, 8 USPQ2d 1400, 1404 (CAFC, 1988)):

- 1) Nature of invention.
- 2) State of prior art.
- 3) Quantity of experimentation needed to make or use the invention based on the content of the disclosure
- 4) Level of predictability in the art.
- 5) Amount of direction and guidance provided by the inventor.
- 6) Existence of working examples.
- 7) Breadth of claims.
- 8) Level of ordinary skill in the art.

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See below:

1) Nature of the invention.

The nature of the invention is preparing a conductive fluorinated polymer composition which are employed in industry as antistatic and shielding materials, conducting coatings, membranes etc. As stated, however, any and all fluorinated polymer composition is intended.

2) State of the prior art and the predictability or lack thereof in the art.

The state of the prior art is that in industry, most conductive materials are made of inorganic fillers such as graphite, soot etc., which require a high percentage of those fillers and which deteriorate in comparison with parent polymers. The existence of this obstacle establishes that the contemporary knowledge in the art would prevent one of ordinary skill in the art from accepting any substance or agent on its face. The instantly claimed invention is highly unpredictable as discussed below:

In the absence of a showing of a correlation between any fluorinated substance or agent capable of being employed in instant process, one of ordinary skill in the art is unable to fully predict possible results from the use of such a substance or an agent due to the unpredictability of chemical processes.

3) Quantity of experimentation needed to make or use the invention based on the content of the disclosure.

The quantity of experimentation needed is undue experimentation. One of ordinary skill in the art would first need to determine the type of agent or substance to employ, and then determine which of the thousands of fluorinated compounds would be suitable for conduction.

4) Level of predictability in the art.

The art pertaining to the conduction remain highly unpredictable. As disclosed by Zilberman et al., page 243 in the introduction and page 252, there is no absolute predictability even in view of the seemingly high level of skill in the art.

5) Amount of direction and guidance provided by the inventor.

The amount of direction or guidance present is found on pages 6-7, wherein specific fluorinated compounds/agents have been identified as capable of being employed is provided.

6) Existence of working examples.

As discussed above, working example is found on pages 6 and 7 wherein the specific agents named above have been identified. Applicant's limited working examples do not enable one of ordinary skill in the art to employ the numerous amounts of substances or agents encompassed by the instant invention.

7) Breadth of claims.

Claim 1 is extremely broad due to the vast number of possible substances or agents encompassed by the functional language.

8) Level of ordinary skill in the art.

The level of ordinary skill in the art is high. Due to the unpredictability in the chemical art, it is noted that each embodiment of the invention is required to be individually assessed for activity to determine which compounds exhibit the desired chemical activity.

Hence, the specification fails to provide sufficient support of the broad use of fluorinated polymer substance or agent employed herein. As a result necessitating one of ordinary skill in the art to perform an exhaustive search to determine which substances or agents can be employed to practice the claimed invention.

*Genentec Inc. V. Novo Nordisk A/S (CAFC) 42 USPQ 2D 1001*, states that:

“a patent is not a hunting license. It is not a reward for search, but compensation for its successful conclusion” and “[p]atent protection is granted in return for an enabling disclosure of an invention, not for vague intimations of general ideas that may or may not be workable”.

Therefore, in view of the Wands factors, and *In re Fisher* (CCPA 1970) discussed above, to practice the claimed invention herein, a person of ordinary skill in the art would have to engage in undue experimentation to test which substance(s) or agent(s) can be employed in the instant claim, with no assurance of success.

This rejection can be overcome by reciting the specific fluorinated compounds named on pages 6 and 7 of the specification.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 3, 5 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the recitation of a conductive fluorinated polymer composition is of indeterminate scope. While the specification defines some groups, which can be employed, there is no guidance as to what other substances constitute a conductive fluorinated polymer. The claim read on substances not yet known to be capable of being a conductive fluorinated polymer.

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Claim 3 is replete with multiple sentences. Claims cannot contain more than one sentence and the period should appear at the end of the sentence. Additionally, the presence of parenthesis in the claim renders the claims imprecise. It is suggested that the parenthesis be deleted. See M.P.E.P. 608.01(m).

Claim 3 recites the limitation "monomeric acid forms, polymeric acids, nonpolar organic solvent" in lines 18, 19 and 21-22 respectively. There is insufficient antecedent basis for this limitation in the claim.

In claim 5, it is not clear what applicants are claiming because no anilinium salt is prepared in step (a) of claim 1.

The phrase "In a process," claim 8 is idiomatic and therefore indefinite.

***Allowable Subject Matter***

Claims 2, 4, 6-7, 9-10 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Japanese Patent number 61123637 is cited to show the state of the art. The said patent discloses polymer products containing aniline and oxidizing agents that are treated with organic low molecular weight compounds, which forms conductive polymer products.

Claims 1-2, 4, 6 and 9 are allowed over the prior art of record.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to E. Sackey whose telephone number is (571) 272-0704.



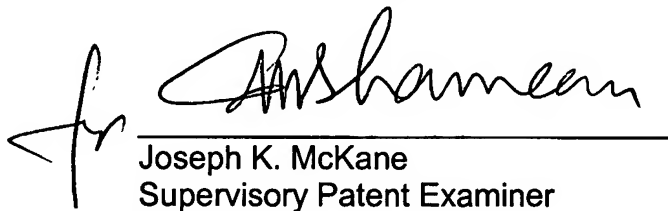
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The examiner can normally be reached on Monday-Friday from 7:30 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph K. McKane, can be reached on (571) 272-0699. The fax phone number for this Group is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-1600.

EOS  
June 23, 2006

  
\_\_\_\_\_  
Joseph K. McKane  
Supervisory Patent Examiner  
Art Unit 1626, Group 1600  
Technology Center 1